

INDEX

- acre, Sedum*, 207
acris acris, Erigeron, 257, 258
acris, Erigeron, 240, 257
Acyrtosiphon pisum, 334
Aedes aegypti, 96
aegypti, Aedes, 96
aenea, Cordulia, 94
Aeshna, 92, 93, 95
 canadensis, 90, 93, 95, 113, 114
 cyanea, 90
 eremita, 95
 interrupta lineata, 89, 90, 91, 92, 93
 96, 99, 100, 101, 102, 103, 104,
 105
 umbrosa, 90
Aeshnidae, 90
Agonum, 218
Agra, 197, 198
Agrion splendens, 95
Agromyzidae, 203, 209, 210, 211,
 239, 262, 265, 266, 267, 268,
 269
agoutis, 182
alaskana, Phytomyza, 242
albiceps, Phytomyza, 239, 240, 241, 243,
 244, 256, 257, 261, 264
album, Sedum, 203, 207
Alexander, C.P., 219, 220, 226, 227
Alexander, M.M. (see Alexander, C.P.),
 219, 220, 227
alfalfa, 335, 336, 337, 342, 346, 347,
 348, 349
alpestris, Solidago, 252
alpina, Phytomyza, 242
alpinus alpinus, Aster, 256
alpinus, Aster, 242
Alnus, 334
Alysiinae, 209, 266
Amans, P., 94, 97
amapensis n. sp., Rhinochenus, 119,
 128, 133, 137, 138, 139, 156, 171,
 180, 185, 189
Amauromyza, 211
 elaeagni, 211
 sheperdiae, 211
amellus, Aster, 240, 243, 256, 257, 258,
 259
Amphasia, 218
Anax, sp., 95
 junius, 90
Anderson, J.N. (see Ball, G.E.), 33
Andrewes, H.E., 20, 21, 31, 32, 48
Anemone, 203
Angus, R.B. (see Coope, G.R.), 355, 365
Anisodactylus interstitialis, 218
 lugubris, 218
 sericeus, 218
Anisoptera, 89, 90, 93, 94, 112
Anisotarsus, 196, 218
Anolis chrysolepis, 201
Anonymous, 285, 363
anserimontis n. sp., Phytomyza, 264, 265,
 278
ant, 201, 317, 318
Anthon, H., 223, 227
Antoine, M., 17, 18, 20, 22, 23, 24, 30, 32,
 33, 36, 46, 52, 53, 57, 58, 59, 60
aphids, 312, 317, 325, 326, 327, 336, 342,
 344, 347, 349, 351
Aphis, 334
Apion, 155
Arctostaphylos uva-ursi, 346
Argia vivida, 90, 95
Arnett, R.H., Jr., 284, 291, 363
Artemisia, 267, 306
Asahina, S., 90, 97
aspen poplar, 222
Aster, 239, 240, 242, 243, 245, 248, 257,
 261, 264
 alpinus, 242
 alpinus alpinus, 256
 amellus, 240, 243, 256, 257, 258, 259
 bellidiastrum, 243, 254, 255
 chiliolatus, 245, 276
 conspicuus, 240, 243, 245, 276
 hesperius, 245
 indicus, 255
 laevis, 245
 macrophyllus, 264
 modestus, 245, 247, 248, 264, 265, 277,
 278
 puniceus, 245
 sibiricus, 239, 246, 277
 trinervius, 264

- Aster* (con't)
tripolium, 242, 260, 261, 263, 264
 Astereae, 239, 240, 244, 247, 255, 277
asteribia, *Phytomyza*, 239, 256, 257
asteris, *Chromatomyia*, 242, 260, 265, 275
asteris, *Phytomyza*, 256, 260
asteroides, *Erigeron*, 240
asterophaga, *Phytomyza*, 240, 241, 243, 244, 245, 264, 265, 276
astotinensis n. sp., *Phytomyza*, 239, 242, 244, 248, 277
atricornis, *Phytomyza*, 266
bahiensis, *Rhinochenus*, 119, 135, 136, 159
 Balduf, W.V., 291, 363
 Ball, G.E., 1-2, 5, 30, 32, 33, 38, 42, 43, 60, 179, 191, 194, 197, 199
balsamifera, *Populus*, 334
barnardi, *Peringueyomyia*, 220, 225, 226, 227
 bark beetle, 280
 Basilewsky, P., 11, 12, 16, 17, 18, 19, 23, 24, 25, 26, 27, 28, 31, 39, 40, 44, 45, 46, 48, 49, 50, 51, 54, 61
 Bates, H.W., 60
 Bedel, L., 11, 17, 24, 32, 36, 40, 46, 60
 beetles, 182, 186, 194, 199, 200, 217, 283, 284, 298, 300, 346, 363, 366
 Beiger, M., 209, 251, 252, 255, 259, 265, 266
 Belicek, J., 116, 282-409
 Bell, R.G. (see Kellogg, V.L.), 347, 369
bellidiastrum, *Aster*, 243, 254, 255
bellidina, *Phytomyza*, 243, 253, 254, 273
Bellis, 240, 243, 251, 252, 253, 254, 261
perennis, 251, 252, 254, 255
silvestris, 252, 254
Bembidion, 218
guttula, 218
Betula, 336
Bibionidae, 225
 Bielawski, R., 351, 363
 Billberg, G.J., 363
biolleyi, *Ctenocolum*, 195
 bird, 122, 200
 Bishop, F., 222, 227
Blaborhinus, 199
 Blackwelder, R.E., 350, 363
 Blanchard, E., 363
 Bland, J.H.B., 363
 Boheman, C.H., 121, 199
 Bouillon, J.B., 364
 Böving, A.C., 289, 364
Brachinus, 191, 194
Brachyacaudus cardui, 334
Braconidae, 209, 266
brasiliensis, *Caryedes*, 193, 195, 196
 Bréthes, J., 364
brevicollis, *Nebria*, 218
brevicollis, *Rhinochenus*, 119, 120, 121, 127, 129, 131, 140, 141, 142, 143, 152, 153, 154, 155, 156, 162, 163, 164, 167, 173, 177, 179, 180, 184, 185, 186, 189, 190
brevispinosa, *Cinara*, 334
 Briggs, R.N., 220, 222, 228
 Britton, W.E., 327, 364
 Brodie, W., 285, 364
 Brown, W.J., 285, 298, 331, 332, 333, 335, 336, 337, 338, 339, 340, 344, 351, 360, 364
 Brown, W.L. (see Wilson, E.D.), 288, 375
Bruchidae, 195, 196, 200, 201
 Bryk, F., 259, 266
Bryobia, 345
 Buchholtz, C., 89, 97
 Buhr, H., 209, 252, 254, 255, 258, 259, 261, 265
 Burakowski, B., 24
 Burrows, M., 95, 97
 butterflies, 115, 116, 367
 butterfly, 116
Caesalpinioideae, 200
caespitosus, *Erigeron*, 239, 243, 255, 277
 Caillère, L., 89, 93, 94, 95, 97
 Calder, J.A., 355, 364
Calleida, 197
callianthemus, *Erigeron*, 250, 277
Calosoma marginale, 218
Calycomyza, 240
canadensis, *Aeshna*, 90, 93, 95, 113, 114
canadensis, *Epilobium*, 334
canadensis, *Erigeron*, 258
canadensis, *Shepherdia*, 211, 213, 216
canadensis, *Solidago*, 240, 247, 249, 252, 253, 259, 277
Caprifoliaceae, 266
Carabidae, 3-89, 195, 196, 199, 201, 217

- cardui*, *Brachyacaudus*, 334
 Carr, F.S., 285, 364
 Carret, A., 15
Caryedes, 194, 195, 200
 brasiliensis, 193, 195, 196
 godmani, 195
 limonensis, 195
 nevermanni, 195
 Caryocaraceae, 200
 Casey, T.L., 19, 22, 23, 24, 38, 285, 298,
 300, 303, 306, 317, 318, 319, 322, 324,
 331, 336, 339, 351, 364
caucensis n. sp., *Rhinochenus*, 119, 128,
 136, 143, 144, 150, 151, 153, 166, 167,
 172, 176, 180, 181, 182, 185, 189, 190
cepaia, *Sedum*, 203, 208, 209
Chaitophorus populicola, 334
 Champion, G.C., 121, 158, 199, 364
 Chapin, E.A., 285, 318, 320, 329, 335, 339,
 342, 343, 344, 364
 Chapin, J.B., 364
 Chapman, J.A., 349, 365
 Chaudoir, M., 61
 chermids, 325
 Chevrolat, A., 120, 121, 138, 199
 Chevrolat, L.A., 317, 365
chevrolati n. sp., *Rhinochenus*, 119, 128,
 132, 133, 139, 140, 141, 165, 170, 180,
 185, 189
chiliolatus, *Aster*, 245, 276
 Chironomidae, 222
chorrensis n. sp., *Rhinochenus*, 119, 124,
 126, 128, 143, 145, 147, 148, 151, 166,
 172, 176, 180, 184, 189, 190, 193, 195,
 196
Chromatomyia, 211, 212, 214, 239, 240,
 242, 243, 256, 260, 266
 asteris, 242, 260, 265, 275
 erigerontophaga, 240, 242, 243, 260, 261,
 262, 263, 275, 277
 farfarella, 260
 horticola, 242, 243, 261
 kluanensis, 260
 leptargyreae n. sp., 211, 212, 215, 216
 merula, 211, 212, 214, 215, 216
 shepherdiana n. sp., 211, 212, 213, 214,
 215, 216
 syngenesiae, 242, 260, 261
 thermarum n. sp., 239, 240, 242, 243,
 Chromatomyia *thermarum* n. sp. (con't)
 262, 263, 275, 277
Chrysobracteion, 218
 Chrysobalanaceae, 200
chrysolepis, *Anolis*, 201
Chyptorhynchus piger, 156
Cicindela, 201
 Cicindelinae, 217
ciliolati, *Phytomyza*, 240, 241, 243, 245, 264,
 265, 276
Cinara brevispinosa, 334
cinereopunctatus, *Rhinochenus*, 129, 131,
 132, 136, 139, 140, 141, 143, 151, 152,
 156, 159, 167, 173, 176, 180, 181, 184,
 185, 186, 189, 190
Cirsium, 334
clandestina, *Podosphaera*, 353
 Clark, M.E., 285, 365
 Clarke, R.O.S., 44, 49, 50, 61
 Clausen, C.P., 291, 365
Clematis, 203
 Cleridae, 199
Cnidium, 266
 Coccinellidae, 282-409
 Index to names of taxa, 402
 Cockerell, T.D.A., 365
Colias, 116
 Coleoptera, 119, 199, 200, 201, 284
 Collart, A., 259, 266
 Colless, D.H., 219, 220, 221, 226, 228
 Collyer, E., 298, 365
compositus, *Erigeron*, 262
commutata, *Elaeagnus*, 211, 214, 216
 Compositae, 239, 255, 261, 266, 267
 conifers, 320, 325, 326
Conioselinum, 266
Conotrachelus, 120, 201
conspicuus, *Aster*, 240, 243, 245, 276
conyzae, *Phytomyza*, 256
 Coope, G.R., 355, 365
Copaifera, 120, 121, 127, 143, 154, 155, 163,
 179, 183
 lengsdorffii, 154, 162
 martii, 154
 trapezifolia, 154
 Corbet, P.S., 90, 97
 Cordulegasteridae, 90
Cordulia aenea, 94
 shurtleffi, 95

- Corduliidae, 90
 Coreidae, 201
 Costa, A., 365
courbaril, *Hymenaea*, 119, 120, 125, 129,
 130, 131, 132, 136, 137, 138, 139, 140,
 141, 142, 143, 148, 149, 150, 153, 156,
 162, 186, 190, 200, 201
 Craig, D.A., 219-237
 Crampton, G.C., 220, 226, 228
 Crassulaceae, 203, 210
 Crotch, G.R., 285, 300, 306, 319, 338, 339,
 350, 352, 365
 Cryptorhynchinae, 119, 201
 Cryptorhynchini, 119, 120, 125
Cryptorhynchus nota, 158
reichel, 139
stigma, 156
 Crum, H.A. (see Porsild, A.E.), 263, 268
 Csiki, E., 3, 6, 24, 26, 40, 44, 52, 57, 58,
 59
Ctenocolum, 194, 195, 200
biolleyi, 195
janzeni, 194, 195, 196
salvini, 195, 196
 Curculionidae, 119, 195, 201
 Curculionidum, 200
Curculio stigma, 125, 156
 Curtis, J., 32, 365
 Cutright, C.R., 342, 365
cyanea, *Aeshna*, 90
Cyrtolaus, 191, 194, 196, 198, 201
danae, *Sympertrum*, 99
 Darlington, P.J., 5, 6, 7, 9, 17, 18, 40,
 42, 43, 47, 61
darlingtoni, *Schizogenius*, 195
 Davidson, W.M., 291, 353, 365
debilis, *Erigeron*, 240, 249, 263
decumbens, *Solidago*, 253
 deer, 121, 182
 DeGeer, C., 365
demissa, *Phytomyza*, 241, 255
despinosa n. sp., *Phytomyza*, 239, 241,
 243, 246, 277
 Dejean, P.F.M.A., 26, 32, 51, 52, 55, 310,
 317, 338, 351, 352, 365
 Dice, L.R., 354, 365
 Dichapetalaceae, 200
 Diptera, 203, 209, 211, 219, 220, 225,
 227, 228, 229, 239, 265, 266, 267, 268
 Diptera (con't)
 269
divaricata, *Larrea*, 356
 Dobzhansky, T., 285, 298, 310, 312, 313,
 314, 315, 316, 331, 334, 335, 336, 337,
 339, 365
 dragon fly, 89, 95
Drosophila, 192
 Duellman, W.E., 192, 193, 199
 Duponchel, P.A.J., 351, 366
 Edwards, J.G., 349, 366
 Ekis, G., 194, 197, 199
 Elaeagnaceae, 211
elaegni, *Amauromyza*, 211
Elaeagnus, 214
commutata, 211, 214, 216
elatior, *Erigeron*, 258
 El-Harri, G., 291, 366
 Elliptoptera, 201
 El-Moursey, A.A., 37
 Emden, F.I., 289, 329, 335, 366
 Emmons, E., 366
 Ephydriidae, 207
Epilobium canadensis, 334
Epiophlebia superstes, 90
eremita, *Aeshna*, 95
Erigeron, 239, 240, 243, 249, 250, 256, 257,
 258, 261, 262
acris, 240, 257
acris acris, 257, 258
asteroides, 240
caespitosus, 239, 243, 255, 277
callianthemus, 250, 277
canadensis, 258
compositus, 262
debilis, 240, 249, 263
elatior, 258
eriocephalus, 262, 277
glabellus, 249, 257
glabellus glabellus, 257, 277
glaucus, 258
grandiflorus, 258
humilis, 250, 262
neglectus, 258
peregrinus, 239, 243, 250, 277
peregrinus peregrinus, 250
philadelphicus, 239, 240, 243, 263, 277
politus, 240, 257
polymorphus, 258

- Erigeron* (con't)
pubescens, 249, 257
erigerontophaga, *Chromatomyia*, 240, 242, 243, 260, 261, 262, 263, 275, 277
erigerontophaga, *Phytomyza*, 261
erigerophila, *Phytomyza*, 239, 240, 241, 243, 244, 256, 257, 258, 259, 260, 274, 277
Erigeron uniflorus, 258
eriocephalus, *Erigeron*, 262, 277
Erwin, T.L., 191, 194, 199
Eutanyderus, 228
wilsoni, 220, 221, 225, 226
Evans, W.G., 279-280
Evarthrus, 191, 199
Ewing, H.E., 366
Exner, K., 219-237
Fabricius, J.C., 121, 199, 366
Fagel, G., 20, 32
Falderman, F., 366
Fall, H.C., 19, 285, 366
farfarella, *Chromatomyia*, 260
Felt, E.P., 324, 366
Fielder, C., 120, 121, 199
fiedleri n. sp., *Rhinochenus*, 119, 127, 129, 130, 131, 133, 135, 165, 179, 180, 185, 186, 187, 189
Fields, G.J., 366
fimbriatus, *Rhinochenus*, 158, 159
Fitch, A., 366
fitchii, *Protoplasma*, 220, 226, 227, 228, 229, 230
flies, 228, 240, 252, 262
Flint, R.F., 285, 366
Fouquieria, 356
Freeman, T.N., 285, 367
Freitag, R., 191, 199, 355, 367
Frey, D.G. (see Wright, H.E.), 285, 375
Frey, R., 252, 265
frogs, 199
Frost, S.W., 264, 266
Fürsch, H., 310, 367
Gage, J.H., 289, 329, 367
Gauvin, A.R. (see Stanford, J.A.), 226, 228
Gebler, F., 367
Gemming, M., 60
Gibbobruchus, 194, 195, 196, 201
gigantea, *Solidago*, 247, 249
glabellus, *Erigeron*, 249
glabellus glabellus, *Erigeron*, 257, 277
glaucus, *Erigeron*, 258
godmani, *Caryedes*, 195
Goeze, J.A.E., 367
Gomphidae, 90
Gordon, R.D., 285, 300, 301, 302, 303, 305, 306, 307, 320, 367
Goulet, H., 7, 194, 199, 218
grandiflorus, *Erigeron*, 258
Gridelli, E., 22
Griffiths, G.C.D., 203-210, 211-216, 239-378
Grote, A.R., 367
Guérin-Mènèville, F.E., 367
Günther, V., 310, 367
guttula, *Bembidion*, 218
Haberman, H., 22, 32, 36
Habu, A., 9, 12, 13, 17, 18, 19, 21, 22, 24, 25, 29, 32, 33, 34, 35, 36, 37, 43, 47, 49, 61
Haffer, J., 193, 200
Hagen, K.S., 289, 291, 367
Hagmeier, E.M., 354, 367
Handlirsch, A., 220, 228
Hansen, V., 17, 20, 22, 24, 32, 33, 36, 61
Harold, B. (see Gemminger, M.), 60
Harpalini, 3-87
Index to names of taxa, 77
Hartig, F., 204, 210, 259, 267
Hatch, M.H., 24, 285, 288, 323, 339, 368
Hawkes, O.A.M., 347, 368
Hendel, F., 120, 259, 261, 263, 264, 267
hendeli, *Phytomyza*, 203
Hennig, W., 125, 200, 220, 223, 225, 228
Herbst, J.F.W., 368
herculeano, *Phloeoxena*, 198
hercules Group, 137, 138, 139, 140, 142, 143, 179, 187
hercules, *Rhinochenus*, 128, 137, 138, 139, 171, 175, 180, 185, 186, 189
Hering, E.M., 210
Hering, M., 207, 208, 209, 210, 252, 253, 254, 255, 257, 258, 259, 261, 267
hesperius, *Aster*, 245
Heteroptera, 201
Heusser, C.J., 355, 367
Hibbard, C.W., 355, 368
Hippodamia oregonensis, 282
Hinton, H.E., 220, 225, 228
Hodek, I., 289, 291, 331, 368

- Holometabola, 228
Homogyne, 264
homogyneae, *Phytomyza*, 264
 Hope, F.W., 32, 368
 Hopkins, D.M., 355, 368
hoppi, *Phytomyza*, 243, 254, 273
 Horn, G.H., 285, 300, 301, 303, 306, 368
horticola, *Chromatomyia*, 242, 243, 261
 Howe, W.H., 115-116
 Huber, J.P., 368
hudsonica, *Leucorrhinia*, 95
 Hultén, E., 240, 267
humilis, *Erigeron*, 250, 262
 Hurd, P.D., 220
Hydrellia, 207
Hylaea, 150
Hymenaea, 119, 120, 121, 122, 125, 127,
 142, 150, 153, 154, 155, 162, 163, 179,
 182, 184, 190, 200
courbaril, 119, 120, 125, 129, 130, 131,
 132, 136, 137, 138, 139, 140, 141,
 142, 143, 148, 149, 150, 153, 156,
 162, 186, 190, 200, 201
intermedia, 150, 190
stigmocarpa, 162
Hypselonotus, 192, 201
 Iablokoff-Khnzorian, 310, 368
 Illiger, J.C.W., 121, 200, 368
 Imms, A.D., 220, 228
indicus, *Aster*, 255
innotatus, *Rhinochenus*, 119, 135
insperata, *Phytomyza*, 264
intacta, *Leucorrhinia*, 111
integrifolia, *Rhodiola*, 204
intermedia, *Hymenaea*, 150, 190
interrupta lineata, *Aeshna*, 89, 90, 91, 92,
 96, 99, 100, 101, 102, 103, 104, 105
interstitialis, *Anisodactylus*, 218
 Jacobson, G.G., 60
 Janzen, D.H., 120, 121, 200
japonica, *Phytomyza*, 243, 255
janzeni, *Ctenocolum*, 194, 195, 196
janzeni n. sp., *Rhinochenus*, 119, 121, 124,
 126, 127, 128, 136, 143, 145, 148, 149,
 150, 151, 166, 172, 176, 180, 182, 184,
 189, 190, 193, 195, 196
 Jeannel, R., 13, 15, 16, 17, 18, 20, 22, 24,
 29, 30, 31, 32, 33, 34, 36, 61, 289, 368
 Jedlicka, A., 12, 13, 24, 44, 53, 54
 Johnson, R.H., 323, 348, 350, 368
Juniperus, 346
junius, *Anax*, 90
 Kaiser, G.W., 354, 368
Kalimeris yomena, 255
 Kaltenbach, J.H., 210
 Kamiya, H., 289, 291, 368
 Kapur, A.P., 298, 339, 368
 Karl, O., 252, 267
 Keen, J.H., 285, 369
 Kellogg, V.L., 347, 369
 Keilin, D., 224, 225, 228
 Kellerhals, R., 222, 228
 Kendeigh, S.C., 354, 369
 Kevan, P.G., 267
 Kingsolver, J.M., 192, 194, 200, 201
 Kirby, W., 369
klagesi n. sp., *Rhinochenus*, 119, 128, 129,
 130, 131, 132, 133, 135, 142, 143, 146,
 156, 165, 169, 180, 184, 185, 186, 187,
 189
 Klausnitzer, B., 289, 369
kluanensis, *Chromatomyia*, 260
 Knight, A.W., 220, 226, 228
 Konopasek, P., 222, 228
 Korschefsky, R., 288, 310, 338, 369
 Krombein, K.V. (see Muesebeck, C.F.W.),
 354, 371
 Krýžhanovskii, O., 56
 Kugelann, J.G., 369
 Kvalca, B., 259, 267
 Lacordaire, J.T., 26
laevis, *Aster*, 245
 Laffoon, J.L. (see Knight, K.L.), 228
lanati, *Phytomyza*, 241
 Landin, B.O., 54
 Langenheim, J.H., 190, 200
langsдорffii, *Copaifera*, 154, 162
 Laroche, A., 217
Larrea divaricata, 356
 Larson, D.J., 355, 369
 Latreille, P.A., 31, 52, 369
 Leach, W.E., 369
 leaf miners, 203, 211, 214, 239, 240, 254
Lebia, 197
 LeConte, J.L., 285, 322, 324, 369
 Lecythidaceae, 200
 Lee, Y-T (see Langenheim, J.H.), 200
 Leguminosae, 200

- Leng, C.W., 285, 317, 318, 331, 335, 339, 351, 369
- Lepargyrea*, 213
- Lepargyreia*, 213
- Leptargyrea*, 213
- leptargyreae* n. sp., *Chromatomyia*, 211, 212, 215, 216
- lepida*, *Solidago*, 240
- Leucorrhinia hudsonica*, 95
- Leucorrhinia intacta*, 111
- Leuschner, R., 115
- Lew, G.T., 90, 92, 97
- Libellula*, 92
- quadrifasciata*, 89, 90, 92, 106, 107, 108, 109, 110
- Libellulidae, 90
- limbicollis*, *Phloeoxena*, 197
- limonensis*, *Caryedes*, 195
- Lindroth, C.H., 6, 13, 14, 16, 17, 19, 20, 21, 22, 23, 24, 29, 30, 31, 32, 33, 36, 37, 38, 41, 42, 43, 53, 60, 61, 193, 200, 354, 355, 370
- Linnaeus, C., 121, 200, 370
- Linnaniemi, W.M., 258, 259, 268
- lions' cub, 300
- Liriomyza*, 240
- Louwerens, C.J., 47
- Loxandrus*, 197
- Lucas, P.H., 120, 121, 200
- lucasi*, *Rhinochenus*, 119, 146
- lugubris*, *Anisodactylus*, 218
- Lundqvist, A., 252, 259, 268
- Lusis, J.J., 329, 370
- Macrodiplactidae, 90
- macrophyllus*, *Aster*, 264
- Macrosiphum pisi*, 335
- maculata*, *Therioaphis*, 335
- maculipes* n. sp., *Rhinochenus*, 119, 122, 127, 129, 131, 132, 133, 135, 136, 140, 141, 156, 165, 169, 180, 182, 184, 185, 187, 189
- Mader, L., 300, 330, 344, 370
- madidus*, *Preroststichus*, 218
- Malkin, B., 370
- mammal, 122
- mangabeirensis* Group, 139, 141, 142, 143, 146, 159, 179, 181, 187
- mangabeirensis* n. sp., *Rhinochenus*, 119, 128, 142, 143, 146, 155, 169, 176, 180, *mangabeirensis* n. sp., *Rhinochenus* (con't) 184, 185, 189
- Mann, W.M., 310, 370
- margarita*, *Protanyderus*, 220, 221, 227, 228, 230
- marginale*, *Calosoma*, 218
- marginella*, *Phytomyza*, 264
- Martel, P., (see Sharma, M.L.), 297, 373
- martii*, *Copaifera*, 154
- Martin, S.S. (see Langenheim, J.H.), 200
- Mateu, J., 52
- Matthews, J.V., Jr., 355, 370
- maximum*, *Sedum*, 203, 208
- McAlpine, D.K. (see Colless, D.H.), 220, 228
- McKenzie, H.L., 285, 288, 322, 370
- McMullen, R.D., 330, 348, 371
- mealybugs, 312
- Medicago sativa*, 336
- megalops*, *Phloeoxena*, 197
- Meggers, B.J., 187, 193, 200
- Meibomeus*, 194, 195, 196, 200
- Meibomeus panamensis*, 195
- Meijere, J.C.H., de., 208, 210, 251, 253, 258, 260, 261, 263, 268
- Melsheimer, F.E., 371
- Merriam, C.H., 354, 371
- merula*, *Chromatomyia*, 211, 212, 214, 215, 216
- merula*, *Phytomyza*, 214
- Michalska, Z., 259, 268
- Michna, J., 259, 268
- Microscapus*, 120, 201
- Mikhaylov, V.A., 56
- Mitchell, B.K., 116
- mites, 345
- Miyatake, M., 310, 371
- Mlynář, Z., 32, 33, 35, 36
- modestus*, *Aster*, 245, 247, 248, 264, 265, 277, 278
- Montrousier, P., (see Perroud, B.P.), 59
- Moore, B.P., 7, 72
- Moss, E.H., 240, 268
- moss mats, 349
- Motschulsky, V., 371
- Muesebeck, C.F.W., 354, 371
- Muir, F. (see Sharp, D.), 289, 373
- Müller, G., 24, 32, 36
- Mulsant, M.E., 324, 338, 371
- multiradiata*, *Solidago*, 249, 250, 277

- Munroe, E.G., 285, 371
 Munscheid, L., 90, 97
 Mutchler, A.J. (see Leng, C.W.), 285, 370
Napomyza, 240
Nebria brevicollis, 218
neglectus, *Erigeron*, 258
 Nègre, J., 26
Nematocera, 219, 228
Nemorimyza, 240
nevermanni, *Caryedes*, 195
 Newcomer, E.J., 298, 371
nigricollis, *Phloeoxena*, 197
 Nimmo, A.P., 355, 371
 Noonan, G.R., 3-87, 194, 200
 Normand, H., 24
nota, *Cryptorhynchus*, 158
nota, *Rhinochenus*, 121, 158
Notiobia, 194, 196, 218
 Nowakowski, J.T., 252, 258, 260, 261, 268
 Nunenmacher, F.W., 285, 371, 372
 oak-piñon-juniper chaparral, 356
Odonata, 89, 95
 Oldroyd, H., 220, 228
 Olesen, J., 89, 94, 95, 97
 Olivier, A.G., 200, 372
Ophiomyia, 240
optimus, *Schizogenius*, 195
oregonensis, *Hippodamia*, 282
 Osten Sacken, C.R., 220, 228
ovimontis n. sp., *Phytomyza*, 239, 241, 243, 255, 274, 277
 Packer, J.G., 355, 372
 Palmer, M.A., 328, 330, 331, 339, 372
panamensis, *Meibomeus*, 195
pannosa, *Sphaerotheca*, 353
 Panzer, G.W.F., 372
Paraphytomyza, 209, 264, 266
peccaries, 121, 182
Pelmatellus, 194, 196, 197, 199
peregrini n. sp., *Phytomyza*, 239, 242, 243, 248, 250, 277
peregrinus, *Erigeron*, 239, 243, 250, 277
peregrinus peregrinus, *Erigeron*, 250
perennis, *Bellis*, 251, 252, 254, 255
Perilypus, 194, 197, 199
Peringueyomyia barnardi, 220, 225, 226, 227
 Perroud, B.P., 59, 73
Petasites, 266
Petaluridae, 90
phalangites n. sp., *Phytomyza*, 239, 242, 247, 248, 249, 250, 276
Phenacaspis pinifoliae, 297
philadelphicus, *Erigeron*, 239, 240, 243, 263, 277
Phloeoxena, 179, 194, 197, 198, 199
herculeano, 198
limbicollis, 197
megalops, 197
nigricollis, 197
picta franiae, 198
picta unicolor, 198
 Phuoc, D.T., 289, 372
Phytagromyza, 209
Phytomyza, 203, 204, 209, 239, 240, 242, 243, 251, 252, 259, 260, 261, 264, 266
alaskana, 242
albiceps, 239, 240, 241, 243, 244, 256, 257, 261, 264
alpina, 242
anserimontis n. sp., 264, 265, 278
asteribia, 239, 256, 257
asteris, 256, 260
asterophaga, 240, 241, 243, 244, 245, 264, 265, 276
astotinenensis n. sp., 239, 242, 244, 248, 277
atricornis, 266
bellidina, 243, 253, 254, 273
ciliolati, 240, 241, 243, 245, 264, 265, 276
conyzae, 256
demissa, 241, 255
despinosa n. sp., 239, 241, 243, 246, 277
erigerontophaga, 261
erigerophila, 239, 240, 241, 243, 244, 256, 257, 258, 259, 260, 274, 277
hendeli, 203
homogyneae, 264
hoppi, 243, 254, 273
insperata, 264
japonica, 243, 255
lanati, 241
marginella, 264
mercula, 214
ovimontis n. sp., 239, 241, 243, 255, 274, 277
peregrini n. sp., 239, 242, 243, 248, 250, 277
phalangites n. sp., 239, 242, 247, 248, 249,

- Phytomyza phalangites* n. sp., (con't)
 250, 276
pienica, 242, 244, 255, 256, 261
rhodiola n. sp., 203, 204, 205, 207, 208
robustella, 256
saxatilis, 242
scopulina n. sp., 239, 240, 242, 243, 244, 248, 249, 250, 277
sed, 203, 205, 207, 208
sedicola, 203, 204, 206, 207, 208, 209
simmi, 239, 251, 252, 265
sitchensis, 241
solidaginis, 244, 252, 258, 260, 274
solidagininivora, 241, 243, 246, 264, 277
solidaginophaga, 241, 244, 249, 252, 272, 277
sonchi, 264
syngenesiae, 266
tenella, 260, 261
tripolii, 263, 264
virgaureae, 239, 243, 244, 251, 252, 253, 259, 272
picta Group, 197
picta franiae, *Phloeoxena*, 198
picta unicolor, *Phloeoxena*, 198
pienica, *Phytomyza*, 242, 244, 255, 256, 261
piger, *Chyptorhynchus*, 156
piger, *Rhinochenus*, 121, 156, 158
 pine trees, 305
pinifoliae, *Phenacaspis*, 297
Pinus, 334
Pinus ponderosa, 304, 319, 356
pisi, *Macrosiphum*, 335
pisum, *Acyrtosiphon*, 334
Platynidius, 218
Platynus, 197, 218
 Plecoptera, 222
Podosphaera clandestina, 353
politus, *Erigeron*, 240, 257
polymorphus, *Erigeron*, 258
ponderosa, *Pinus*, 304, 319, 356
populicola, *Chaitophorus*, 334
Populus balsamifera, 334
 Porsild, A.E., 263, 268
 Porta, A., 17, 20, 22, 23, 24, 33, 36, 61
 Prance, G.T., 193, 200
 primitive crane flies, 219, 227, 229
 Pritchard, G., 89-114
Protanyderus, 219, 220, 221, 225
margarita, 220, 221, 227, 228, 230
vanduzeei, 230
vipio, 220, 227, 228, 230
Protoplasa, 220, 221, 225
fitchii, 220, 226, 227, 228, 229, 230
 Provancher, A.L., 372
pseudostigma n. sp., *Rhinochenus*, 119, 129, 131, 138, 142, 143, 147, 152, 155, 156, 164, 167, 173, 177, 180, 184, 185, 187, 189, 190
 Psychodidae, 227
 Pterostichini, 201
Pterostichus madidus, 218
 Ptychopteridae, 220, 227, 228
pubescens, *Erigeron*, 249, 257
 Puchkova, L.V., 259, 268
 Puel, L., 13, 32, 52
pumicatus, *Stomis*, 218
puniceus, *Aster*, 245
 Putman, W.L., 291, 298, 299, 372
 Putzeys, J.A.A.H., 41
quadrifaculata, *Libellula*, 89, 90, 92, 106, 107, 108, 109, 110
radula, *Solidago*, 259
 Randall, J., 372
 Ranunculaceae, 203
Ranunculus, 203
 red spider mite, 365
reichei, *Cryptorhynchus*, 139
reichei Group, 137, 139, 140, 179, 187
reichei, *Rhinochenus*, 121, 128, 133, 140, 141, 165, 170, 175, 180, 185, 189
 Reiter, E., 17, 19, 20, 22, 23, 24, 31, 32, 33, 34, 35, 36, 39, 40, 46, 53, 54, 55, 56, 57, 58, 60, 324, 372
reventazon Group, 197
 Reynoldson, T.B., 220, 221, 228
Rhinochenus, 119, 120, 121, 124, 125, 126, 127, 129, 131, 132, 133, 136, 137, 139, 140, 141, 142, 143, 144, 145, 148, 149, 150, 151, 152, 153, 154, 155, 158, 163, 165, 166, 167, 169, 170, 171, 172, 173, 174, 175, 176, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 190, 191, 193, 194, 195, 198, 199
 Key to species, 127

- Rhinochenus amapensis* n. sp., 119, 128, 133, 137, 138, 139, 156, 171, 180, 185, 189
bahiensis, 119, 135, 136, 159
brevicollis, 119, 120, 121, 127, 129, 131, 140, 141, 142, 143, 152, 153, 154, 155, 156, 162, 163, 164, 167, 173, 177, 179, 180, 184, 185, 186, 189, 190
caucensis n. sp., 119, 128, 136, 143, 144, 150, 151, 153, 166, 167, 172, 176, 180, 181, 182, 185, 189, 190
chevrolati n. sp., 119, 128, 132, 133, 139, 140, 141, 165, 170, 180, 185, 189
chorrensis n. sp., 119, 124, 126, 128, 143, 145, 147, 148, 151, 166, 172, 176, 180, 184, 189, 190, 193, 195, 196
cinereopunctatus, 129, 131, 132, 136, 139, 140, 141, 143, 151, 152, 156, 159, 167, 173, 176, 180, 181, 184, 185, 186, 189, 190
fiedleri n. sp., 119, 127, 129, 130, 131, 133, 135, 165, 179, 180, 185, 186, 187, 189
fimbriatus, 158, 159
hercules, 128, 137, 138, 139, 171, 175, 180, 185, 186, 189
innotatus, 119, 135
janzeni n. sp., 119, 121, 124, 126, 127, 128, 136, 143, 145, 148, 149, 150, 151, 166, 172, 176, 180, 182, 184, 189, 190, 193, 195, 196
klagesi n. sp., 119, 128, 129, 130, 131, 132, 133, 135, 142, 143, 146, 156, 165, 169, 180, 184, 185, 186, 187, 189
lucasi, 119, 146
maculipes n. sp., 119, 122, 127, 129, 131, 132, 133, 135, 136, 140, 141, 156, 165, 169, 180, 182, 184, 185, 187, 189
mangabeirensis n. sp., 119, 129, 142, 143, 146, 155, 169, 176, 180, 184, 185, 189
nota, 121, 158
piger, 121, 156, 158
pseudostigma n. sp., 119, 129, 131, 138, 142, 143, 147, 152, 155, 156, 164, 167, 173, 177, 180, 184, 185, 187, 189, 190
reichei, 121, 128, 133, 140, 141, 165, 170, 175, 180, 185, 189
rougieri, 119, 158, 159
scutellaris, 158, 159
subcruciatus, 119, 121, 146
stenaspis, 158, 159
sticticus, 119, 121, 125, 158, 159
stigma, 119, 121, 122, 123, 124, 126, 127, 129, 131, 132, 135, 136, 138, 139, 140, 141, 142, 143, 148, 149, 150, 151, 156, 157, 158, 159, 160, 161, 162, 163, 164, 168, 173, 174, 178, 179, 180, 182, 184, 185, 186, 187, 189, 190, 193
striatus, 159
thrombithorax n. sp., 119, 128, 143, 144, 148, 149, 150, 151, 166, 167, 172, 176, 180, 185, 189, 190
transversalis, 118, 119, 121, 122, 123, 124, 126, 127, 129, 130, 131, 132, 134, 135, 136, 140, 143, 148, 149, 150, 151, 161, 165, 169, 175, 180, 182, 184, 185, 187, 189, 193
triangulifer, 158, 159
trilineatus, 119, 158, 159
x-rubra, 119, 121, 128, 136, 138, 143, 144, 146, 147, 151, 156, 159, 166, 171, 176, 180, 181, 185, 186, 187, 189
x-rubrum, 146
Rhodiola, 203
integrifolia, 204
rosea, 203, 204, 208
rhodiolae n. sp., *Phytomyza*, 203, 204, 205, 207, 208
Rhyphidae, 227
Richard, G., 89, 92, 93, 97
Richerson, J.V., 291, 372
Robinson, A.G., 298, 372
robustella, *Phytomyza*, 256
rodents, 121
Rohdendorf, Holmanova, E.B., 259, 268
Rose, J.H., 220, 228
rosea, *Rhodiola*, 203, 204, 208
Rosen, D.E., 191, 200
Rossi, P., 372
rougieri, *Rhinochenus*, 119, 158, 159
Rowe, J.S., 354, 372
Ruetter, R. de (see Brown, W.J.), 285, 338, 339, 340, 344, 351, 364
rugosa, *Solidago*, 252

- rupestris, Umbilicus*, 209
 Rydén, N.S., 209, 210, 252, 259, 268, 269
Salix, 336
salvini, Ctenocolum, 195, 196
 Sasaji, H., 291, 298, 300, 303, 306, 351, 372, 373
 Sasakawa, M., 264, 268
sativa, Medicago, 336
 Savojskaja, G.J., 289, 373
saxatilis, Phytomyza, 242
 Saxifragaceae, 266
 Say, T., 285, 324, 373
 scale, 305, 326, 327
 Scaritini, 201
 Schaeffer, C., 336, 373
 Schatzmayr, A., 52
 Schauburger, E., 3, 12, 19, 35, 36, 40, 43, 44, 47, 48, 55, 56, 58
 Schilder, F.A., 291, 373
 Schilder, M., (see Schilder, F.A.), 291, 373
Schizogenius, 191, 192, 194, 195, 196, 201
 darlingtoni, 195
 optimus, 195
 sculptilis, 194, 195
 Schmidt-Goebel, H.M., 19, 49
 Schönherr, C.J., 121, 200
 Schwarz, E.A., 373
 Schweiger, H., 20
 Schwoerbel, J., 222, 226, 228
scopulina n. sp., Phytomyza, 239, 240, 242, 243, 244, 248, 249, 250, 277
 Scott, F.T., 285, 338, 344, 373
 Scriba, L.G., 373
sculptilis, Schizogenius, 194, 195
scutellaris, Rhinocenus, 158, 159
sedi, Phytomyza, 203, 205, 207, 208
sedicola, Phytomyza, 203, 204, 206, 207, 208, 209
Sedum, 203
 acre, 207
 album, 203, 207
 cepaea, 203, 208, 209
 maximum, 203, 208
 telephium, 203, 207, 208, 209
 Sehgal, V.K., 252, 269
 Seidel, J., 209, 210, 259, 269
 Semenov-Tian-Shanski, A., 373
Senecio, 266
 Senecioneae, 264, 266
sericeus, Anisodactylus, 218
serotina, Solidago, 252, 259
 Sharma, M.L., 297, 373
 Sharp, D., 289, 373
 Shelford, V.E., 354, 373
Shepherdia, 213
 amauromyza, 211
 canadensis, 211, 213, 216
 chromatomyia n. sp., 211, 212, 213, 214, 215, 216
 Shewell, G., 220
 Short, J.R.T., 90, 97
shortii, Solidago, 259
 shrubs, 325, 326
 Shull, A.F., 288, 374
shurtleffi, Cordulia, 95
sibiricus, Aster, 239, 246, 277
 Sicard, A., 374
 Silva, A.G. d'Ae, 190
silvestris, Bellis, 252, 254
simmi, Phytomyza, 239, 251, 252, 265
 Simpson, B.B., 193, 200
 Simuliidae, 225, 228
sitchensis, Phytomyza, 241
 Skala, H., 209, 210, 258, 259, 269
 Smith, S.G., 318, 361, 374
 Sneider, D.H., 373
 Snodgrass, R.E., 90, 92, 94, 97
solidaginis, Phytomyza, 244, 252, 258, 260, 274
solidaginvora, Phytomyza, 241, 243, 246, 264, 277
solidaginophaga, Phytomyza, 241, 244, 249, 252, 272, 277
Solidago, 239, 240, 243, 247, 248, 249, 250, 251, 252, 253, 258, 259, 261, 264
 alpestris, 252
 canadensis, 240, 247, 249, 252, 253, 259, 277
 decumbens, 253
 gigantea, 247, 249
 lepida, 240
 multiradiata, 249, 250, 277
 radula, 259
 rugosa, 252
 serotina, 252, 259
 shortii, 259

Solidago (con't)

- virgaurea*, 252, 259, 264
virgaurea virgaurea, 251, 252, 258, 259
sonchi, *Phytomyza*, 264
 Sønderup, H.P.S., 258, 261, 269
 Spencer, K.A., 203, 208, 209, 210, 211,
 212, 213, 214, 244, 245, 252, 254, 259,
 260, 261, 262, 263, 264, 269
Sphaerothera pannosa, 353
splendens, *Agrion*, 95
 Stanford, J.A., 226, 228
 Starke, H., 209, 210, 252, 269
 Starý, B., 209, 210, 259, 269
 Stehr, F.W. (see Phuoc, D.T.), 289, 372
 Stehr, W.C., 285, 374
stenaspis, *Rhinochenus*, 158, 159
 Stephens, J.F., 32, 374
sticticus, *Rhinochenus*, 119, 121, 125, 158,
 159
stigma Group, 139, 141, 142, 143, 147,
 150, 159, 179, 181, 187, 189
stigma, *Cryptorhynchus*, 156
stigma, *Curculio*, 125, 156
stigma, *Rhinochenus*, 119, 121, 122, 123,
 124, 126, 127, 129, 131, 132, 135, 136,
 138, 139, 140, 141, 142, 143, 148, 149,
 150, 151, 156, 157, 158, 159, 160, 161,
 162, 163, 164, 168, 173, 174, 178, 179,
 180, 182, 184, 185, 186, 187, 189, 190,
 193
stigmocarpa, *Hymenaea*, 162
Stomis pumicatus, 218
 Storch, R.H. (see Vaundell, W.L.), 339
 Straneo, S.L., 8
striatus, *Rhinochenus*, 159
 Strouhal, H., 289, 374
subcruciatu, *Rhinochenus*, 119, 121, 146
superstes, *Epiophlebia*, 90
Sympetrum sp., 94
danae, 99
syngenesiae, *Chromatomyia*, 242, 260,
 261
syngenesiae, *Phytomyza*, 266
 Synthemidae, 90
 Tanaka, K., 12, 13
 Tanyderid, 219
 Tanyderidae, 219, 220, 227, 228, 229,
 230, 231
 tanyderids, 220, 221, 225, 226
 Taylor, R.L. (see Calder, J.A.), 355, 364
telephium, *Sedum*, 203, 207, 208, 209
tenella, *Phytomyza*, 260, 261
Thenarellus, 197
Therioaphis maculata, 335
thermarum n. sp., *Chromatomyia*, 239, 240,
 242, 243, 262, 263, 275, 277
thrombithorax n. sp., *Rhinochenus*, 119,
 128, 143, 144, 148, 149, 150, 151, 166,
 167, 172, 176, 180, 185, 189, 190
 Thunberg, C.P., 374
 Timberlake, P.H., 285, 322, 330, 339, 350,
 374
 Tipulidae, 220, 228, 229
transversalis Group, 129, 130, 131, 132,
 135, 136, 142, 143, 179, 187
transversalis, *Rhinochenus*, 118, 119, 121,
 122, 123, 124, 126, 127, 129, 130, 131,
 132, 134, 135, 136, 140, 143, 148, 149,
 150, 151, 161, 165, 169, 175, 180, 182,
 184, 185, 187, 189, 193
trapezifolia, *Copaifera*, 154
 trees, 325, 326
 Trichoceridae, 227
Trifolium, 334
triangulifer, *Rhinochenus*, 158, 159
trilineatus, *Rhinochenus*, 119, 158, 159
trinervius, *Aster*, 264
tripolii, *Phytomyza*, 263, 264
tripolium, *Aster*, 242, 260, 261, 263, 264
 Tschirnhaus, M. von, 269
 Tschitschérine, T., 30, 33, 40, 60
Tussilago, 266
 Umbelliferae, 266
Umbilicus, 209
rupestris, 209
umbrosa, *Aeshna*, 90
uniflorus, *Erigeron*, 258
uva-ursi, *Arctostaphylos*, 346
Valeriana, 266
 Van der Hammen, T., 194, 201
vanduzeei, *Protanyderus*, 230
 Van Dyke, E.C., 354, 374
 Van Emden, F., 6, 11, 16, 17
 Vanzolini, P.E., 125, 127, 193, 201
 Vaundell, W.L., 339, 374
 Verhoeff, C., 374
vipio, *Protanyderus*, 220, 227, 228, 230
virgaurea, *Phytomyza*, 239, 244, 251, 252,

- virgaureae*, *Phytomyza* (con't)
253, 259, 272
virgaurea, *Solidago*, 252, 259, 264
virgaurea virgaurea, *Solidago*, 251, 252,
258, 259
Vitt, D.H. (see Packer, J.G.), 355, 372
vivida, *Argia*, 90, 95
Voigt, G., 252, 259, 269
Vuilleumier, B.S., 121, 125, 127, 149, 150,
164, 186, 188, 193, 201
Watson, W.Y., 285, 322, 335, 340, 342,
374
Webb, D.A., 203, 210
Weed, C.M., 353, 374
weevil, 120, 122, 127, 130, 155, 163, 182,
193, 198
Weise, J., 374
Westwood, J.O., 20, 32
Wheeler, W.M., 291, 310, 317, 375
Whitehead, D.R., 118-201
white spruce, 222
Wigglesworth, V.B., 116
Williams, E.E. (see Vanzolini, P.E.), 193,
201
Williams, I.W., 220, 229
Willis, H.L., 129, 201
Wilson, E.O., 197, 201, 288, 375
wilsoni, *Eutanyderus*, 220, 221, 225, 226
Wingo, C.W., 285, 299, 300, 303, 317, 336,
339, 360, 375
Wollaston, T.V., 40
Wood, H.G., 220, 225, 226, 228
Wright, H.E., Jr., 285, 375
Xestonotus, 218
x-rubra, *Rhinochenus*, 119, 121, 128, 136,
138, 143, 144, 146, 147, 151, 156, 159,
166, 171, 176, 180, 181, 185, 186, 187,
189
x-rubrum, *Rhinochenus*, 146
yomena, *Kalimeris*, 255
Yosida, T.H., 347, 375
Yothers, M.A. (see Newcomer, E.J.), 298,
371
Zavřel, H., 209, 210
Zavřel, H. (see Skala, H.), 209, 210, 258,
259, 269
Zetterstedt, J.W., 375
Zimsen, E., 201
Zoerner, H., 258, 261, 269